

102221-1244550

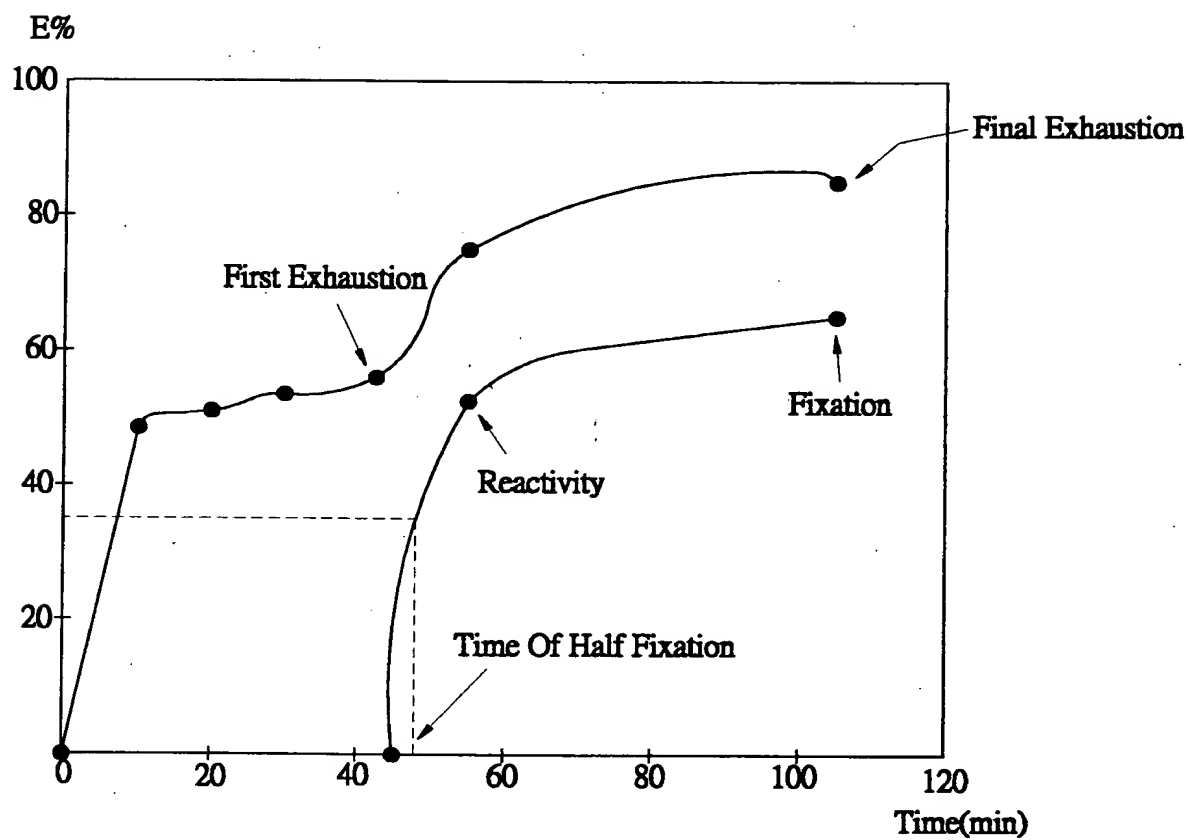


FIG.1

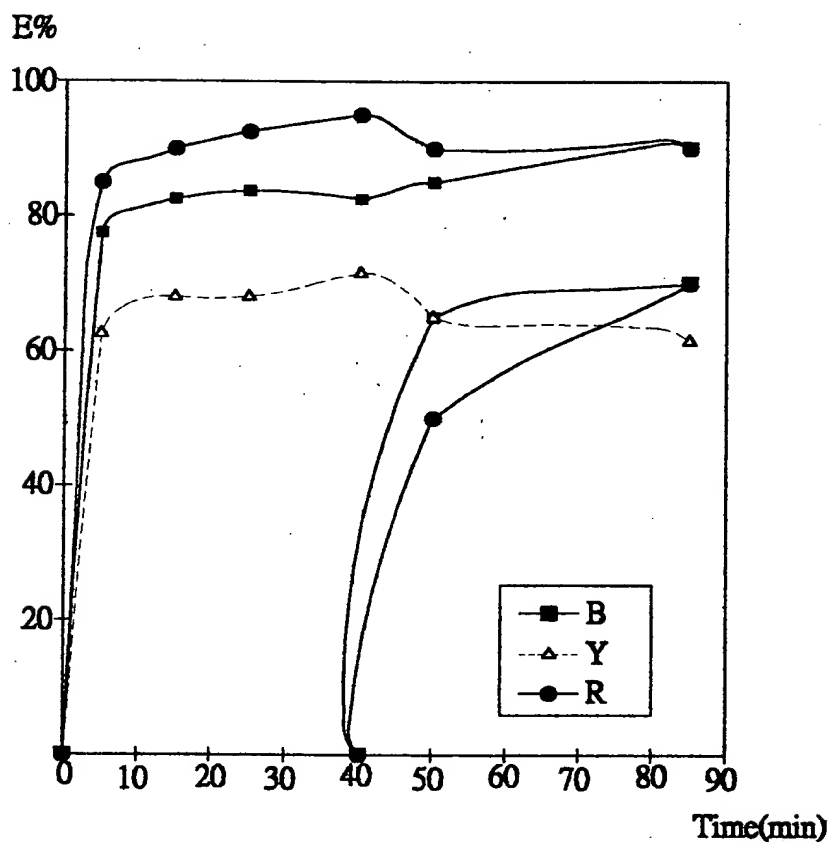


FIG.2

Time (min)	Curve B (E%)	Curve Y (E%)	Curve X (E%)
0	0	0	0
10	80	70	65
20	85	74	70
30	82	72	72
40	84	72	73
55	90	78	55
60	92	80	60
80	95	84	70
105	95	85	75

FIG.3

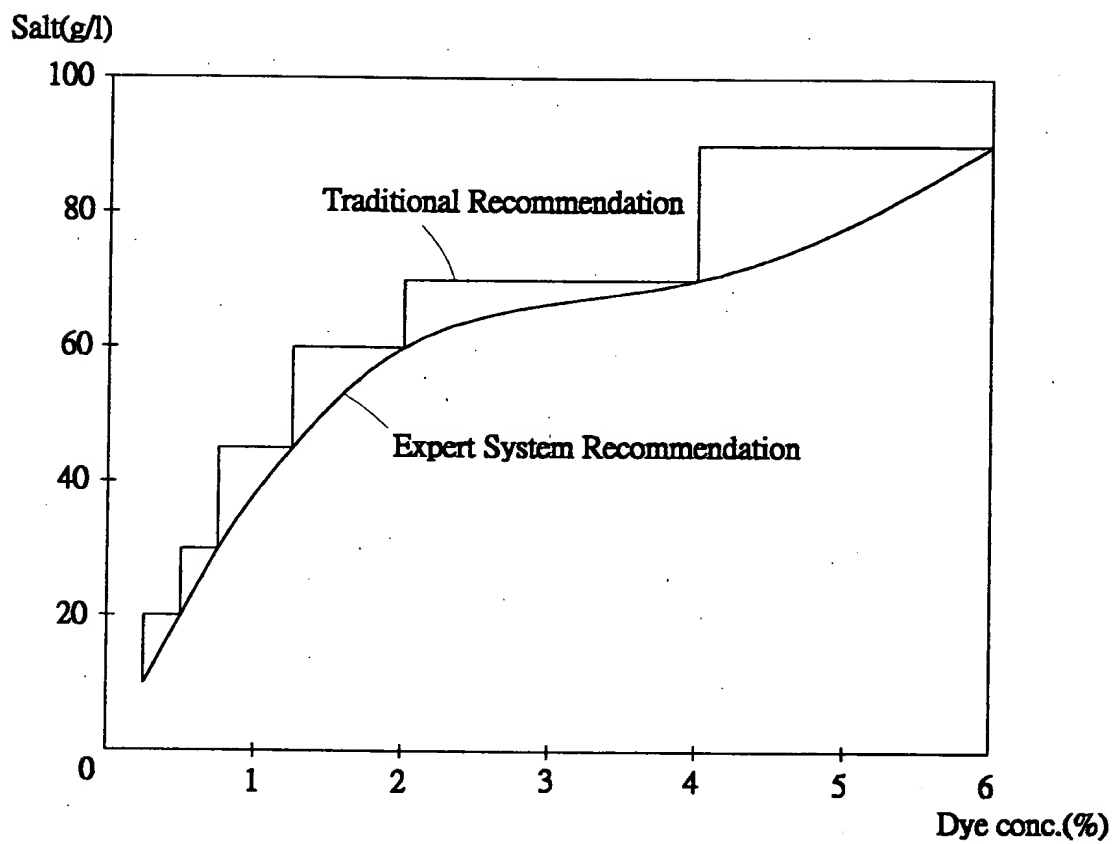


FIG.4

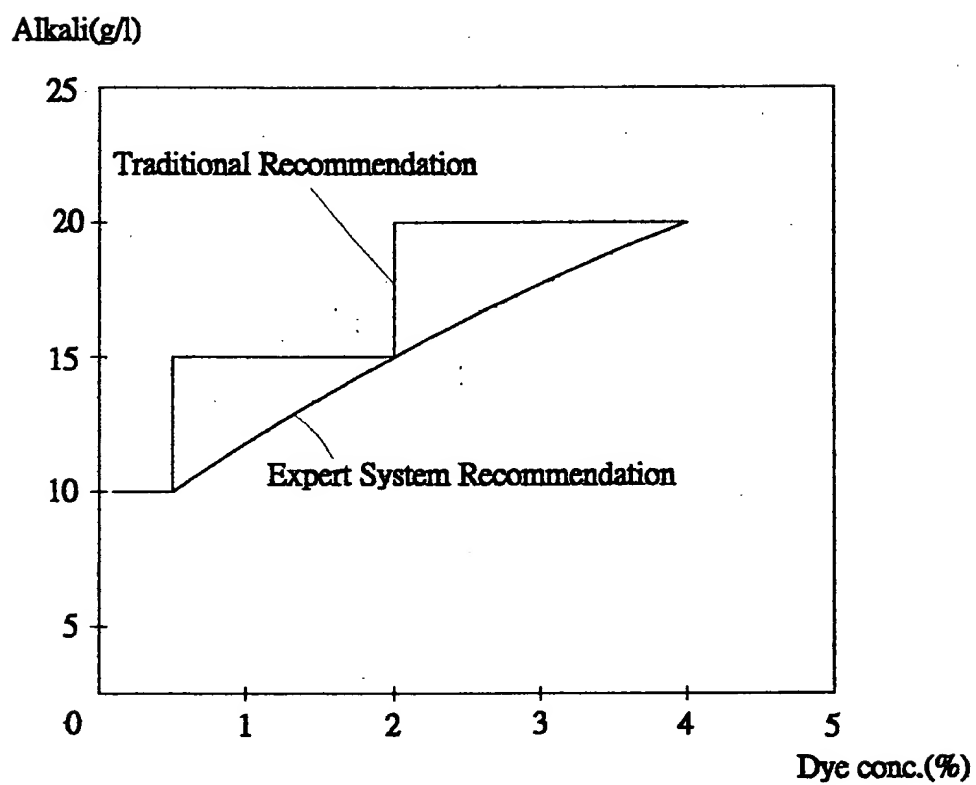


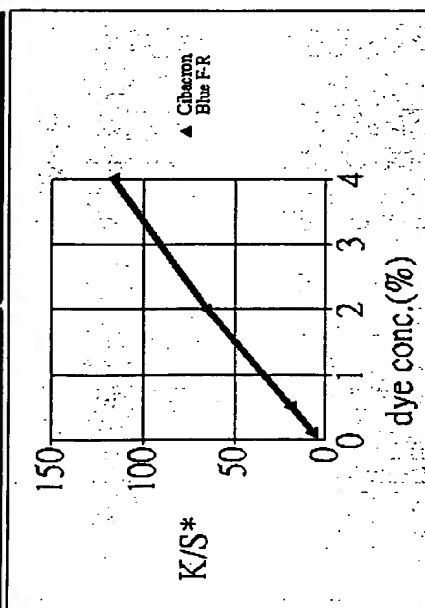
FIG.5

Dyestuff Database

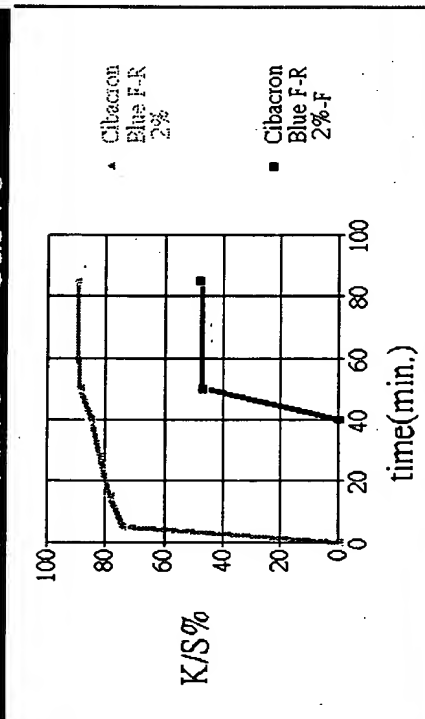
name Cibacron Blue F-R counts: 29

type 60°C choose conc. menu end

build-up curve



exhaust curve



dye build-up and feature parameters

depth	1st exhaustion	final exhaustion	fixation	reactivity	hal
7.23	87.64091	87.02986	63.11192	101.6598	4
18.88	84.11723	88.24448	46.3824	97.8284	5
65.9	85.0425	90.06641	47.98203	98.17905	5
116.3	70.39645	84.78133	43.34097	91.48753	5

FIG. 6

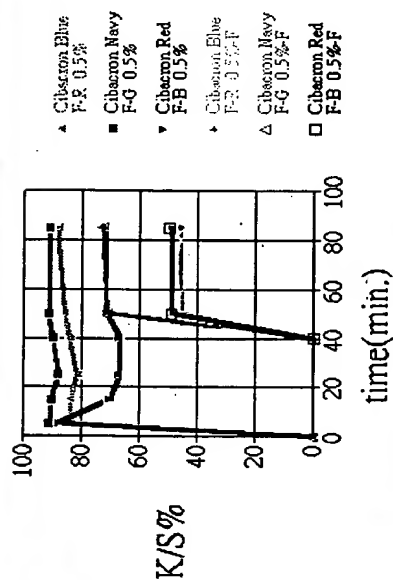
China Textile Institute~The Compatibility of dye combination

The Compatibility of dye combination

type of dyes 60°C

exhaust curve

recipe	conc. (%)
Cibacron Blue F-R	0.5
Cibacron Navy F-G	0.5
Cibacron Red F-B	0.5
Na2S04	40
Na2C03	15



compatibility index

std process

migr process

Lab Process

96.8%
good

go

menu

end

fabric cotton knitted

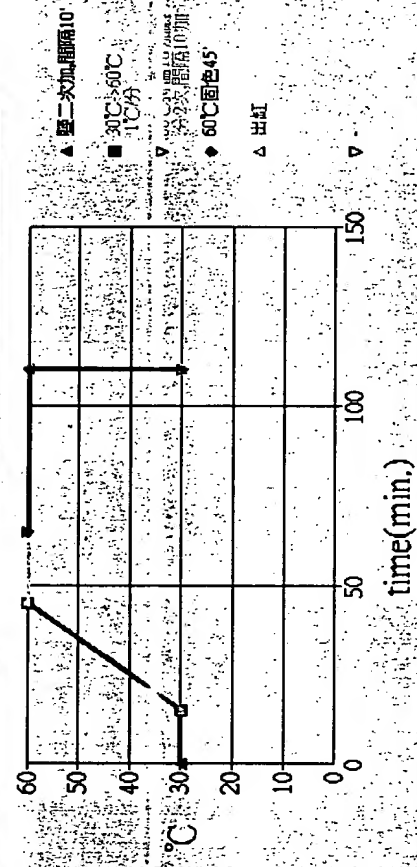


FIG. 7

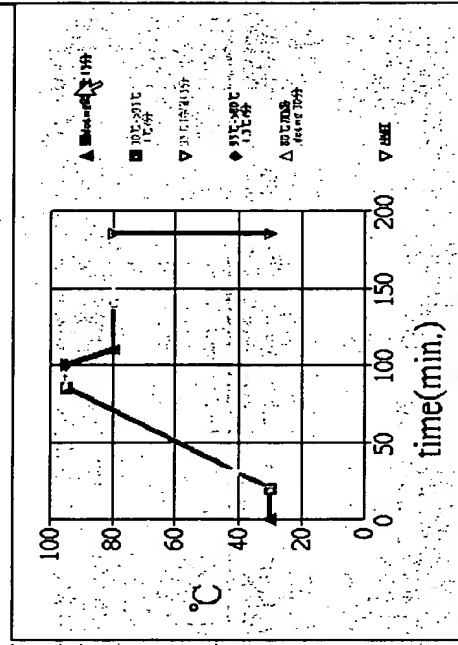
Process Optimization

- Dyeing Condition menu end

woven kint dye type 80°C std process migr process optimization

specification	width(in)	dyeing	recipe
tricot	70	Evercion Blue H-EGN 125%	0.5 %
		linear wt. (g/y) Evercion Blue H-ERD	0.5 %
	200	Evercion Navy Blue H-ER	0.5 %
		total wt. (kg) Na2SO4	50 g/l
	700	Na2CO3	20 g/l

m/c No.	cap. (kg)	nozzle : 85mm
DH-1	360	fabric speed : 350y/min.
type	tubes	3batch(loading rate 64.%)
JetFlow	2	cycle time : 3.33min.
fabric speed(y/min.)	loading rate(%)	dyeing time : 185. min.
max. 450	max. 80	
optim 350	optim 60	
min. 200	min. 30	



fabric cotton knitted cycle time(s) 200 save

FIG. 8

Recipe Optimization

type of dyes		std LR	used LR
60°C	10	20	
recipe			
Cibacron Blue F-R	1	1	1
Cibacron Navy F-G	1	1	1
Cibacron Red F-B	1	1	1
Na2SO4	50. g/l	65.1 g/l	
Na2CO3	18. g/l	18. g/l	

normal

optimal

specified

specified

menu

end

liquor ratio dependency

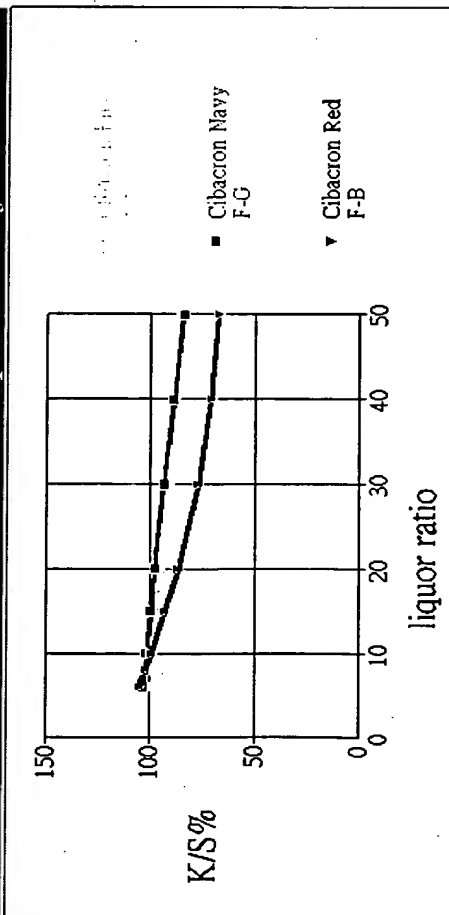


FIG. 9